



### Unusual Fern Finds

HENRY MOUSLEY

Following up the suggestion made by Mr. W. R. McColl in the Oct.-Dec. number of the *FERN JOURNAL*, 1924, p. 104, I am here enumerating a few of my rarest finds amongst the ferns at Hatley, Stanstead County, Quebec. First and foremost let me say, I consider the rarest, as well as the most interesting, find of all to be the one figured in the accompanying illustration, which represents, not only an example of that rare and curious little form of the moonwort, *Botrychium onondagense*, but one, also, of dichotomous branching in the same species, which condition is very uncommon in any of the *Botrychiums*, and perhaps is unique in this particular species

or form, whichever you prefer to call it. As may be gathered from my recent paper in the above number of the JOURNAL, on *B. dissectum*, I have spent several years in intensive study of the Botrychiums, but never have I come across an example of dichotomous branching, until I found this one on July 10, 1924. The station where these little plants are found is a very small one indeed, and I have to limit myself to one or two specimens a year.

Probably my next rarest find is a plant of *B. virginianum*, discovered on June 16, 1924, bearing four fruiting panicles, a thing hitherto unknown to me in any of the Botrychiums, although I have examined some thousands of plants, the nearest approach to it being several examples in *B. obliquum*, *B. silaifolium*, and one also in the present species, with three fruiting panicles. In addition to these, I have found many examples in *B. obliquum*, *B. dissectum*, *B. silaifolium*, and *B. virginianum* bearing two fruiting panicles, as well as, in several cases, sori on the sterile fronds.

Of very small examples in this family, I have a plant of *B. virginianum* with fruiting panicle complete which is only 8 cm. in height, and one of *Ophioglossum vulgatum* still smaller, its total height being only 3 cm.

Amongst giant examples, I once found a plant of *B. virginianum* measuring 91.5 cm. in height, which is 30.5 cm. in excess of the extreme given in Gray's Manual! The sterile segment of this extraordinary plant measured 45.75 cm. across!

Amongst other interesting forms outside of the Botrychiums may be mentioned examples of *Polypodium virginianum*, forma *deltoideum*, corresponding to the example in plate No. 1 of the FERN JOURNAL for Jan.-March, 1924, with the exception that the spurs in my example only appear on the lower side of the two bottom

segments and not on the top as well. The tips, however, are elongated, and the plants might with equal propriety be referred to forma *elongatum*, of which I have several other examples, but in no case are the tips excessively elongated, although several of the segments in some cases are narrow and very pointed, and could therefore no doubt be referred to forma *acuminatum* also. These all came from the big gorge at Coaticook, Quebec, about nine miles to the east of Hatley.

In the FERN JOURNAL for April-June, 1924, pages 60-61, Mr. Weatherby gives the range of the very beautiful forma *cambricoides* of *P. virginianum*, so far as it was then known. It is with pleasure that I am able to extend this range into northern Vermont, for I have taken examples of this form near Montgomery, the only difference in my examples being that they are not quite so extreme and highly developed as Rev. F. W. Gray's from West Virginia, which is figured in the FERN JOURNAL for Jan.-March, 1924, plate No. 2. The var. *cambricum* of *P. vulgare* as I knew it in Europe is characterized by the acute tips of the segments, rather than by the great elongation of the same, as appears in Mr. Gray's example, which I should imagine is an extreme example of the forma *cambricoides*, but here my specimens are more like the English ones, *i.e.*, the segments are shorter.

Possibly these notes would hardly be complete without reference to the var. *aleuticum* of *Adiantum pedatum*, which I first found on August 30, 1920, about three weeks prior to its discovery at the foot of Mt. Orford by Mrs. L. Frances Jolly, of Berkshire, Vt., to whom I have already given credit elsewhere for really bringing the matter to light. Hitherto, this variety had only been found in the province of Quebec on the top of Mt. Albert, 3280 ft., and at Black Lake, Megantic County. It is

fairly well distributed around Hatley in a more or less pronounced form, according, no doubt, to the abundance or absence of the asbestos formation in the vicinity of the plants.

In conclusion, I trust I may not be the only one to comply with Mr. McColl's suggestion, and that ere long we may hear from other members of the Society, relating their red-letter days. The photograph from which the illustration was made was taken by the Geological Survey at Ottawa, and I am indebted to Dr. M. O. Malte, chief botanist, National Herbarium, Ottawa, for it, the specimen having been presented to the Herbarium.

MONTREAL, P. Q.

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### **Data on *Scolopendrium vulgare* J. E. Smith**

W. R. MCCOLL

As the station at Georgian Bay, and the immediate vicinity of Owen Sound, Ont., is the only known home for *Scolopendrium* in Canada (if we omit a small colony in New Brunswick) it makes the notes by Mabel R. Hunter, in the *FERN JOURNAL*, Vol. 14, No. 4, 1924, concerning this plant in New York State unusually interesting to one who has for some years studied and taken the plant in this vicinity.

It is quite evident from the quantities mentioned in the above article, (two hundred and fifty plants being found in an area ten feet square), that conditions in New York State must be altogether favorable for this plant's requirements.

The Hart's tongue here, as it is commonly called, is intermittently scattered over an area of ten or twelve miles in suitable situations, on shaded limestone rock talus, broken outcrops of limestone, in limestone vugs,